

REMARKS

The Office Action of July 13, 2009 presents the examination of claims 20, 23 and 24. These claims remain pending and are not further amended.

Rejection under 35 USC § 112, first paragraph

Claims 20, 23 and 24 are rejected under 35 USC § 112, first paragraph, for alleged lack of adequate written description of the invention. The Examiner is requiring evidence that the yeast strain FT-4 has been deposited and will be made available to the public upon issuance of a patent from the present application.

The evidence and assurances required by the Examiner were provided by the Applicant in a Declaration re Deposit of Microorganisms on December 17, 2008 and another copy of the Declaration was faxed to the Examiner on August 12, 2009. Thus, Applicant believes that this rejection was made in error and should be withdrawn.

Rejection for obviousness

Claims 20, 23 and 24 are rejected under 35 USC § 103(a) as being unpatentable over Nakagawa et al. (1994). This rejection is respectfully traversed. Reconsideration and withdrawal thereof are requested.

Applicant submits that the Examiner fails to make a case of *prima facie* obviousness of the claimed invention.

The present invention is directed to the deposited strain of yeast, FT-4 (accession no. FERM BP 8081), bread dough comprising the yeast and a method for making bread dough using the yeast. Applicant asserts, as the Examiner admits, that the reference is silent as to the strain FT-4. The Examiner takes a position that the reference discloses the tools for making a strain such as FT-4. However, this is not correct.

It is true that the reference discloses several yeast strains produced by "hybridization" that have properties of good fermentability on lean and sweet doughs. However, the yeast of the present invention exhibits not only these characteristics, but also the characteristics of retaining

excellent fermentability despite prolonged frozen storage and being low in isobutyric acid content. The result of low isobutyric acid content is that the FT-4 yeast imparts little or no offensive odor and taste to a bread product made using this yeast. Nakagawa is completely silent about the isobutyric acid content of yeasts or about how this characteristic affects bread quality.

Thus, one of ordinary skill in the art who reads Nakagawa would not be directed toward producing a yeast having the characteristic of low isobutyric acid content nor consider high fermentability after **prolonged** frozen storage as a goal. Certainly nothing in Nakagawa establishes any reasonable expectation of success in achieving these aspects of the present invention. Therefore, Nakagawa is insufficient to establish *prima facie* obviousness of the present invention and the instant rejection must be withdrawn.

Even if the Nakagawa reference is deemed to establish *prima facie* obviousness, the present invention provides results that would be considered unexpected by one of ordinary skill in the art who reads the reference.

Freezing tolerance

While the dough disclosed by Nakagawa was stored at -20⁰C for only one week, the doughs of the present invention were tested for three months. (See Example 4 and Fig.1.) The yeast strain, Strain FT-4, of the present invention shows high fermentability in the non-sugar and high-sugar doughs even after one month of frozen storage. (See Table 8.)

The greater freeze tolerance of FT-4 is unexpected from the Nakagawa reference, and is significant and advantageous.

Yeast taste and odor

Although Nakagawa teaches the fermentability of yeast strains, he is silent about yeast taste and odor and components responsible for them. On the other hand, the strain of the present invention has a very weak offensive taste and odor characteristic of yeast and is almost tasteless and odorless. (See page 8, line 3 - page 9, line 1 and Example 5.) This characteristic arises because the yeast of the present invention exhibits a very low content of isobutyric acids. (See, page 8, lines 14-28 of the specification.)

The Nakagawa reference relates to fermentability and bread volume, and retention of these properties after short term (one week) frozen storage. Nakagawa's disclosure in no way relates to the flavor of a yeast or of bread made from it, and so it must be that the characteristics regarding the taste and odor of the FT-4 yeast are unexpected by one of ordinary skill in the art who reads the reference.

There is as yet no known common link between the characteristics in yeasts of freeze tolerance, high fermentability on different doughs and low isobutyric acid content/low odor. Thus, the production of yeast strains that are freeze-tolerant and have high fermentability, as shown by Nakagawa, does not provide one of skill in the art with guidance to make yeast strains that are freeze-tolerant and have high fermentability as well as a low content of compounds responsible for offensive taste and odor, such as the presently claimed FT-4 strain.

Thus, a person skilled in the art would not expect reasonable success in creation of yeast strains to be tolerant to prolonged freezing, have high fermentability, and to have low content of components responsible for offensive taste and odor based on the disclosure of Nakagawa. Alternatively, the finding that FT-4 has this desirable combination of characteristics must be considered unexpected by one of ordinary skill in the art who reads Nakagawa. In either case, the instant rejection of claims 20, 23 and 24 as obvious over Nakagawa must be withdrawn.


The present claims are patentable over the prior art of record. The favorable actions of withdrawal of the standing rejections and allowance of the claims are requested.

The due date for response to the Office Action is extended two months, to December 13, 2009, by petition filed herewith.

If necessary, the Commissioner is hereby authorized in this, concurrent, and future replies to charge payment or credit any overpayment to Deposit Account No. 02-2448 for any additional fees required under 37.C.F.R. §§1.16 or 1.14; particularly, extension of time fees.

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Respectfully submitted,

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